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Marie Clark

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An Exploratory Study of Black
and White College Students on
the Hand Test

(TITLE)

BY

Marie Clark

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Master of Arts

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1978

YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
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ABSTRACT

In the past Blacks have not been used in the construction or development of norms for psychological tests, though they are routinely administered to Blacks. Several researchers have made an effort to determine whether tests which have been standardized on White subjects are applicable to Blacks (Megargee, 1966; Johnson & Sikes, 1965; Mussen, 1953). These authors found that differences in personality of Blacks and Whites on personality tests should not be used to make inferences unless the two groups are matched on a number of prominent variables.

In general, the research suggests that there are significant differences between Black and White subjects and tests that were standardized on the White population may be applied to both groups in certain clinical settings (e.g., incarcerated individuals and delinquents).

The present study was concerned with racial differences in projective test responses. To explore Black and White differences, the Hand Test (Wagner, 1962) was administered to 50 Black, 29 male and 21 female, (mean age 21.5) and 50 White, 20 male and 30 female, (mean age 22.2) volunteer college students, from the population of Eastern Illinois University. Each student was individually administered the Hand Test according to standardized instructions and the responses recorded verbatim.

Results indicated there were significant differences on 19 of the

27 investigated variables. These variables were: Affection, Communication, Direction, Aggression, Sum of interpersonal Responses, Crippled, Sum of Maladjustive Responses, Description, Failure, Sum of Withdrawal Responses, High minus Low, Pathology, Emulation, and Acting Out Score.

These results are consistent with previous research (Megargee, 1966; Johnson & Sikes, 1965; Mussen, 1953; Gynther, 1971) which have shown there are marked differences to be found between Blacks and Whites even when little or no control is used. From the results obtained in this study, it appears that separate norms are needed for Blacks and Whites; although it is cautioned that, due to a lack of control, further research is needed.

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STATEMENT OF PROBLEM

While it is rare for Blacks to be used in the development or standardization of projective personality tests, it is common for such tests to be used in the psychological assessment of Blacks. There have been investigations into the question of whether White norms are applicable to Blacks. For example, Megargee (1966) stated that since it is questionable whether tests standardized on Whites can be automatically applied to Blacks, it is necessary to compare the test performance of Whites and Blacks in various settings to determine whether special norms should be developed for the later group.

In his review of the literature, Megargee (1966), found that previous investigations show differences in intellectual ability rather than in basic personality structure are probably of primary importance in mediating inter-racial test differences. He also suggest that norms for one group can be applied to another, and that differences which are obtained between racial groups on projective tests should not be used to make inferences about differences in the basic personality structure of Whites and Blacks unless the groups have been carefully matched on intelligence as well as other salient variables.

In the past, projective personality assessment devices have attempted to look at themes (TAT) and basic components of personality. One test which attempts to evaluate a number of personality traits, which lead to only one major measurement, is the Hand Test. The Hand Test has been

used for diagnostic purposes with particular success in predicting overt aggressive behavior (Bricklin, Poitrowski, & Wagner; 1962). King (1973) administered the Hand Test to one group of "non-aggressive" subjects and one group of "aggressive" subjects. All of the subjects were Black male adolescents. He found no significant difference between "non-aggressive" and "aggressive" subjects on the Acting Out score (subject behaves in such a way as to bring him to the attention of others as a result of overt aggressive behavior) on the Hand Test. There was no significant difference between the "non-aggressive" and "aggressive" subjects in the number of Affection (AFF) responses (responses expressing affection, a positive emotional attitude, or an affectionally benevolent attitude toward others), and the "aggressive" subjects gave significantly more Withdrawal (WITH) responses (effective life goals have been partially or completely abandoned) to the Hand Test stimuli than the "non-aggressive" subjects. Azcarate and Gutierrez (1969) used the Hand Test to differentiate the degree of institutional adjustment in a group of delinquents; and to look at the Maladjustment (MAL) category (responses representing difficulty carrying out various action tendencies, because of subjectively experienced inner weakness and/or external prohibition) in making a significant contribution to the Acting Out Ratio (AOR), in determining institutional adjustment. They found that a combination of the Acting Out Ratio and the Maladjustment Category is a more efficient predictor of institutional adjustment than is either alone. Singer and Dawson (1969) studied the falsification on the Hand Test, They randomly tested 20 male and 20 female students from intro-

ductory psychology classes. Each subject was administered the Hand Test during a 45 minute session. Three different methods of administration were used. The results of the study showed that a major weakness of the Hand Test, which contributes to its vulnerability to falsification, is that the rationale used for scoring and interpreting responses is quite similar to what the subjects reported they were aware of while intentionally faking their responses. The authors point out that projective tests have been successfully falsified on content, and the interpretive rationale of the Hand Test is based largely on content.

The Hand Test has not been validated on the Black population. Though the test has been used with Black subjects, no attempt has been made to construct norms. Since racial test differences is a major concern of psychological testing, and in view of the findings which were cited above, the Hand Test will be used to explore projective test response differences between Blacks and Whites.

REVIEW OF THE LITERATURE

There are few cross-cultural studies which involve Blacks and Whites on projective techniques. The editor of the Primary Records in Cultural and Personality Series (Kaplin, 1961, as cited in Johnson and Sikes, 1965) has estimated that though there have been as many as 150 studies in 75 societies, most of these studies have used only a single culture without any cross-cultural comparisons.

Recently, the interest in cross-cultural studies have increased, but the research is expanding at a very slow rate. In attempting to answer some of the questions about cultural differences, previous investigators have failed to control for such variables as intelligence, age, and others.

Megargee (1966) in his review of the literature concerning projective techniques, found that there are more differences to be found in studies in which the White and Black samples are equated for I.Q., than in studies where this was not done. Megargee matched Black and White juvenile delinquents on the Thematic Apperception Test (TAT), the Rosenzweig Picture Frustration Study (PF), and the Holtzman Inkblot Technique (HIT), and found differences in intellectual ability rather than personality structure; therefore, intellectual ability is probably of primary importance in mediating inter-racial test differences. He also found that differences obtained between groups on projective tests should not be used to make inferences about differences of Blacks and Whites unless the groups have been carefully matched on intelligence as well as other salient variables. Furthermore, white norms are applicable to Black clients of equivalent I.Q. only in custodial settings (Megargee, 1966).

Johnson and Sikes (1965) conducted an exploratory study between Black, Mexican-American, and Anglo psychiatric patients. Through the use of the Rorschach and Thematic Apperception Tests, they found a number of statistically significant differences. The Black group was low on Potential Hostility, but comparatively high on Victim Hostility. The Mexican-American group was high on Potential Hostility and low on Victim Hostility. The Anglos occupied a middle position in their handling of Hostility, but show greatest internal tension together with more flexible control. McCary (1956) did a study to revise the norms for the Picture-Frustration study. Exploring age, sex, race, and geographic habitat, he found the most significant differences were between northern and southern groups. The northern group was more extrapunitive (showing aggression toward the source of frustration) and the southern group more intropunitive (showing aggression toward self and experiencing feelings of shame and guilt) and impunitive (denying or minimizing frustration). The results indicated that there are differences in both the direction of aggression and in the type of reaction to frustration shown by the present geographic, sex, and racial groups; and new norms are needed. Mussen (1953; as cited in Dreger & Miller, 1960) investigated the differences between TAT responses of Black and White male adolescents and found Black adolescents to express greater hostility in thought processes than did white adolescents, less need for acting out murderous aggression, but about the same for other types of acting out. The Black adolescents manifested a low self-concept, less desire for friendships and being respected or followed by others. They viewed their environment as being hostile.

Thompson (1949; as cited in Dreger & Miller, 1960) made an effort

to make it easier for Blacks to identify with the TAT characters and published his Black version (T-TAT) with characters of obviously Negro characteristics. For some reason the research following Thompson's idea tends to disprove the assumption that Blacks identify better with pictured characters of their own race rather than with corresponding white characters. Four groups of subjects, two white and two black, were given the M-TAT and the T-TAT by Cook (1953); the former to one group from each race and the latter to the alternate group from each race. The Black subjects regarded the characters in both sets of pictures as people in general; while the Whites looked upon the Thompson characters as Blacks rather than people in general. These results are in agreement with previous studies which show no necessity for a Black version of the TAT.

There have also been different opinions involving the differences found in intelligence between Blacks and Whites, and the probable causes for these differences. There has been some comparison of personality and intellectual cross-cultural differences. For example, Oldroyd and Howell (1977) compared personality, intellectual, and behavioral differences among Blacks, Chicano, and White prison inmates in the Utah State Prison and found religious and standard intelligence test scores to be significantly different. They also found Chicanos to be more assertive. Blacks posed less escape risks and were better adjusted.

In studying the relationship between intelligence and frustration-aggression patterns, McCary and Tracktir (1957) administered the Otis Q-S Gamma and the Rosenweig Picture-Frustration Study to 188 White and 87 Black pupils in an integrated high school in Pittsburgh, Pennsylvania.

All of the subjects were described as middle middle-class families. The aggressive reactions to frustration of the racial groups at each of the levels of intelligence showed that there was no consistent relationship obtained between intelligence and frustration-aggressive patterns. These findings indicate the importance of considering intellectual ability along with other multi-factor influences before establishing normative data which are expected to apply equally well to more than one specific group of subjects.

Based on the literature, it appears that the amount of control that is needed in evaluating cross-cultural relationships is uncertain. Projective devices showed differences in Blacks and Whites when used with incarcerated groups (e.g., institutionalizes individuals and jailed individuals). The present study is an exploratory investigation of projective personality test response differences of Blacks and Whites as measured by the Hand Test.

It is hypothesized that a significant difference will be found in Black and White responses to the Hand Test variables; with Blacks showing a greater number of responses to those variables which contribute to the total Acting Out Score.

METHOD

Subjects

The subjects for this study were a sample of 50 Black (29 male and 21 female) and 50 White (20 male and 30 female) students, who volunteered for the study, from the population of Eastern Illinois University. The mean age for the Black subjects was 21.5 years, SD 2.6; the mean age for the White subjects was 22.2 years, SD 5.1. This difference in age between the groups was nonsignificant.

Assessment Technique

The Hand Test (Wagner, 1962) was administered to all subjects. The Hand Test consists of ten stimuli cards, nine of which contain drawings of human hands (the tenth card is blank). The Hand Test has been significantly proven to predict overt aggressive behavior. To predict such behavior, an "Acting Out Score" is mathematically computed. It is expressed as the differences between the sum of aggressive and domineering action tendencies on the one hand and the sum of cooperative or non-aggressive attitudes, on the other. There are other response categories in addition to those which are used to derive the acting out score.

The reliability of the Hand Test was proven by the use of the Spearman-Brown split half method. The Spearman-Brown split half (odd-even) reliability was obtained by comparing the PATH scores for cards I, III, V, VII, and IX, to cards II, IV, VI, VIII, and X, for each protocol. The

PATH reliabilities for the three scorers were A, .85; B, .84; C, .85. The correlations on the PATH score between the scorers were: A+B, .86; A+C, .96; B+C, .92.

Procedure

Each subject was shown the ten Hand Test cards, one at a time, and instructed to tell the examiner what the hands look like it might be doing. An Acting Out score was then obtained by subtracting the sum of responses in the classes of Fear, Affection, Communication, and Dependence from the sum of responses in the classes of Aggression and Directs, i.e., $\text{Sum (Aggression + Directs)} - \text{Sum (Fear + Affection + Communication + Dependence)}$.

RESULTS

The 30 variables contained in the Hand Test scoring categories, as well as race, age, and sex, were included in the data analysis. A Mann-Whitney U Test was conducted on each scale to determine if a difference existed between the two groups.

The Mann-Whitney U means, medians, and standard deviations, of the two groups are presented in Table 1; Blacks and Whites respectfully. They are: Affection, ($\underline{U} = 899.5, p \leq .01$); Communication, ($\underline{U} = 870.0, p \leq .05$); Direction, ($\underline{U} = 900.5, p \leq .01$); Aggression, ($\underline{U} = 1091.5, p \leq .01$); Sum of Interpersonal Responses, ($\underline{U} = 1017.0, p \leq .01$); Acquisition, ($\underline{U} = 1063.0, p \leq .01$); Active, ($\underline{U} = 968.5, p \leq .01$); Passive, ($\underline{U} = 1099.0, p \leq .01$); Sum of Environmental Responses, ($\underline{U} = 1039.5, p \leq .01$); Crippled, ($\underline{U} = 1095.5, p \leq .01$); Description, ($\underline{U} = 898.0, p \leq .05$); Sum of Maladjustive Responses, ($\underline{U} = 1069.5, p \leq .01$); Failure, ($\underline{U} = 1090, p \leq .01$); Total Responses, ($\underline{U} = 968.5, p \leq .01$); High minus Low, ($\underline{U} = 901.0, p \leq .01$); Pathology, ($\underline{U} = 1061.5, p \leq .01$); Emulation, ($\underline{U} = 1009.5, p \leq .01$); and Acting Out Score, ($\underline{U} = 951.5, p \leq .01$), Withdrawal, ($\underline{U} = 1078.0, p \leq .01$).

TABLE 1

Mean, Median, Standard Deviations, for the Investigated
Hand Test Variables, U and P values for each group

Variables	Blacks n=50			Whites n=50			U	P
	Mean	Median	SD	Mean	Median	SD		
Affection	.94	.85	.91	1.46	1.34	1.07	899.5	.01
Dependence	.36	.17	.66	.25	.15	.43	1195.0	NS
Communication	1.64	1.34	1.35	.94	.76	.99	870.0	.05
Exhibition	.28	.12	.64	.22	.11	.50	1220.5	NS
Direction	.80	.61	.94	1.28	1.15	1.03	900.5	.01
Aggressive	.90	.73	.97	1.12	.98	1.13	1091.5	.01
Sum Interperson- al Responses	4.86	4.50	2.28	5.00	5.55	1.70	1017.0	.01
Acquisition	1.16	.88	1.44	1.30	1.28	1.03	1063.0	.01
Active	3.48	3.19	2.93	2.60	2.26	1.53	968.5	.01
Passive	.76	.46	1.37	.50	.30	.81	1099.0	.01
Sum Environ- mental	4.96	4.90	3.22	4.28	3.92	2.01	1039.5	.01
Tension	.18	.68	.62	.06	.03	.24	1173.5	NS
Crippled	.94	.28	2.89	.37	.17	.58	1095.5	.01
Fear	.06	.03	.24	.04	.02	.19	1225.0	NS
Sum Maladju- stive	1.08	.39	2.89	.42	.25	.64	1069.5	.01
Description	1.18	.55	2.93	.30	.19	.50	898.0	.05
Failure	.10	.05	.30	.30	.14	.61	1090.0	.01
Bizarre	0	0	0	0	0	0	0	NS

Table 1-continued

Variables	Blacks n=50			Whites n=50			U	P
	Mean	Median	SD	Mean	Median	SD		
Sum Withdrawal	1.28	.75	2.91	.62	.50	.69	1078.0	.01
Total Responses	11.36	10.41	3.16	10.24	10.13	1.18	968.5	.01
Average Initial Response Time	4.83	4.01	4.58	4.83	3.95	1.98	1227.0	NS
High minus Low	6.89	4.04	9.34	10.32	6.66	9.09	901.0	.01
Pathology	2.56	1.95	2.66	1.70	1.81	1.41	1081.5	.01
Repetition	.20	.05	.72	.16	.05	.51	1249.5	NS
Emulation	.64	.30	.96	.80	.17	2.88	1009.5	.01
Active (Movement)	.24	.12	.55	.22	.14	.41	1203.5	NS
Acting Out Score	-1.24	-1.19	2.26	-.24	-.20	2.12	951.5	.01

DISCUSSION

The results supported the hypothesis that a significant difference in responses would be found between the Black and White groups. The total Acting Out Score was found to be significant, although the correlation was negative;

Black subjects gave more Communication (COM) responses, showing social intercourse, good fellowship, and effective communication; more Active (ACT) responses, which indicate involvement in constructive accomplishments though, from society's view, their achievements may seem modest, routine, or even antisocial; more Passive (PAS) responses, which suggest that the individual will desire and accept conditions which allow psychological and/or physical passivity; more total Environmental (ENV) responses, showing as effective interest in the impersonal aspects of living and working; more Crippled (CRIP) responses, indicating some type of inferiority; more total Maladjustive (MAL) responses, showing neurotic symptomology; more Description (DES) responses, representing a feeble "safe" reaction to reality; more total Withdrawal (WITH) responses, indicating pathology; more total number of responses (R), indicating high reserve of reaction tendencies to choose from; more High minus Low (H-L) responses, showing emotional and/or intellectual difficulties with concomitant feelings of consternation, helplessness, or anxiety; more Pathology (PATH) responses, which shows the amount of pathology

in a record; and a higher Acting Outing Out Score (AOS).

The White subjects gave more Affection (AFF) responses, showing participation in pleasurable relationships which involve the mutual interchange of positive effect and attitudes; more Direction (DIR) responses, indicating a development of a consistent means of accomplishing his ends by somewhat divesting interpersonal relations of affect in order to concentrate on domination and control; more Aggression (AGG) responses, showing a tendency to frighten and irritate others because of his/her hostility; more Total number of Interpersonal (INT) responses, which represents a keen and varied interest in, sensitivity to, and interaction with people; more Acquisition (ACQ) responses, which designate a willingness to exert oneself in order to attain important goals, along with the subjective feeling of desire which accompanies such aspirations; more Failure (FAIL) responses, which may indicate neurotic ambivalence concerning the acting out of a particular role, dissociative tendencies, breakdown in reality contact, or an inability to respond meaningfully for organic reasons; and more Emulation (EMU) of the stimulus cards.

Summarizing, the Black subjects show social intercourse, good fellowship, effective communication; attempts to accomplish for their own gratification; tend to be lazy and/or followers rather than leaders; exhibit feelings of inferiority and withdrawal; have a high reserve of reaction tendencies to choose from; and show emotional and/or intellectual difficulty with concurrent feelings of dismay or horror, helplessness, or anxiety. The White subjects show participation in pleasurable relationships which involve the mutual interchange of positive affect

and attitudes; a tendency to deprive others in order to fulfill their own needs of control and domination; a tendency to frighten and irritate others because of their hostility; a keen and varied interest in, sensitivity to, and interaction with people; a willingness to work toward goals while having selfish feelings which accompanies such aspirations; and acting out of roles.

It appears that the results of the Black group are consistent with previous investigations such as that of Gynther (1971) and his investigation of the Minnesota Multiphasic Personality Inventory (MMPI) response differences of Blacks and Whites. Gynther concluded that misdiagnosis of Blacks in clinical situations is almost inevitable when White norms are applied to the Black subculture. Another explanation for Black and White differences might be that given by Grier and Cobbs in their book Black Rage. They found that, based on a presumably very small sample of Blacks and Whites, their conclusions about the warping of Blacks (temperament) traits by discrimination and the reciprocal warping of the White traits are not out of keeping with conclusions reached by controlled research. The title of the book suggests the thesis: "... black people are locked in a life struggle..." and are angry, whether they know it or not, and white people are acting in a vicious manner toward blacks, whether they know it or not. Grier and Cobb's statement appear to specifically apply those traits shown on the Hand Test by Black and White groups; those of Blacks exhibiting feelings of inferiority and excepting a following position, while the Whites attempt to gain control and domination in order to fulfill their needs.

The appearance of more Maladjustive responses in the Black group may possibly be attributed to the cultural and/or environmental background of Blacks. Where sociably desirable response sets which are appropriate for survival in a subculture, when manifested in a dominant culture, becomes viewed as deviance or maladjustive, Chawla (1969).

Mussen's (1953) finding of Black male adolescents expressing greater hostility in thought, less need for acting out, manifestation of low self-concepts, less desire for friendships or being followed by others; are supported by this study because Blacks as a group possessed the same or similar characteristics as measured by the Hand Test.

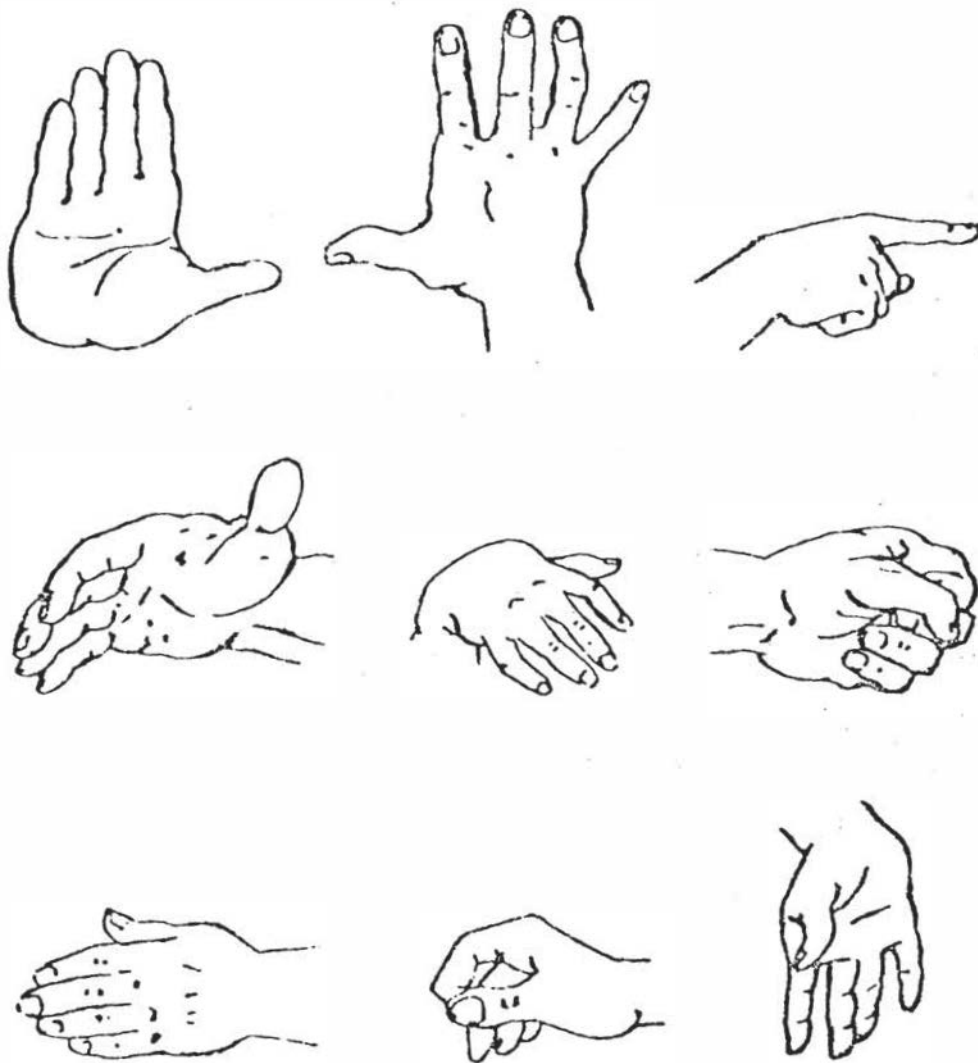
The results obtained in the present study appear to be a reliable measurement of Black and White response differences. When compared to the median PATH score (1.7) of college students used by Wagner et al, (1962) in the normative group, the median PATH score of the Black (1.9) and the White (1.8) group were not found to be significantly different.

This study was limited because of the lack of control. The differences found between the two groups cannot be taken as conclusive because the Hand Test is a state test, revealing the subjects as they are at the present time - not as they were or could be. Even so, it appears from the results obtained, that there is a need for separate norms.

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APPENDIX



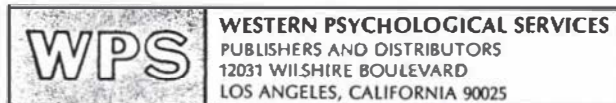
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The Hand Test

SUMMARY SHEET

by Edwin E. Wagner, Ph.D.

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DATE _____

NAME _____ SEX _____ AGE _____ RACE _____

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OCCUPATION _____ DIAGNOSIS _____

AFF =	ACQ =	TEN =	DES =	R =
DEP =	ACT =	CRIP =	FAIL =	AIRT =
COM =	PAS =	FEAR =	BIZ =	H-L =
EXH =	Σ ENV =	Σ MAL =	Σ WITH =	PATH =
DIR =				
AGG =	ER = Σ INT: Σ ENV: Σ MAL: Σ WITH =			
Σ INT =	AOR = (AFF + DEP + COM):(DIR + AGG) =			

QUALITATIVE ADMINISTRATIVE OBSERVATIONS _____

CASE HISTORY AND DIAGNOSTIC DATA _____

EXAMINER _____

CARD	IRT	HAND TEST RESPONSES	SCORE
I			
II			
III			
IV			
V			
VI			
VII			
VIII			
IX			
X			